IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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TITLE: A SOLUTION OF METAL-POLYMER CHELATE(S) AND APPLICATIONS THEREOF

Amendment E: CLAIM AMENDMENTS

1. (canceled)

2. (canceled)

3. (canceled)

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41. (canceled)

42. (Currently amended) A solution of metal-polymer chelates for immobilization of a biological protein bearing biological molecules in a ~~bio-~~carrier containing at least one metal-polymer chelate, the solution for assisting in a fermentation preserving process,the solution comprising by weight:

~~a bio-~~carrier structure ~~skeleton~~ having a 0.1 -99.867 ~~-~~percent water, 0.01 - 2019.8999 percent hydroxyl group bearing polymers having at least one carbohydrate molecule, and 0.0001 to 20 percent of metal salt having at least one metal ion;

carboxyl and amino groups combined with said a ~~bio-~~carrier structure ~~skeleton~~ for the carrier, the carboxyl and amino groups comprising 0.01 – 39.9040 ~~-~~percent of a carboxyl group bearing molecules having at least one carboxylic acid, and 0.01 - 20 percent of an amino group bearing molecules having at least one ammonia; and

a mixture of the chelates forming a chain which contains positive and negative polar functional groups, the chelates mixed with a trace percent of biological proteins having biological molecules into a bio-carrier, the bio-carrier being selected from the group consisting of

gaseous state, a powder, metal of nanometer size, an inorganic, an organic/inorganic, a fluid, a semi-fluid, a conductor, a semiconductor, a thin-film, a fiber, a chip, a cell and bio-tissue.

43. (Previously presented) The solution of metal-polymer chelates of Claim 42, further comprising:

at least one protein dissolved with an electric potential suitable for the protein.

44. (Previously presented) The solution of metal-polymer chelates of Claim 42, further comprising:

soluble carbohydrate molecules having at least one monosaccharide bimolecule of monosaccharide derivatives.

45. (Previously presented) The solution of metal-polymer chelates of Claim 42, further comprising;

at least one alkali.

46. (Previously presented) The solution of metal-polymer chelates of Claim 42, wherein the metal salts are selected from a group consisting of beryllium, magnesium, calcium, strontium, barium, radium, nickel, chromium, lead, copper, iron, zinc, titanium, manganese, cobalt, silver, gold, platinum, palladium, cadmium, lithium, rubidium, cesium, mercury, tin, zirconium, aluminum, thallium, antimony, bismuth, germanium, gallium, molybdenum, tungsten, yttrium, scandium, rhodium, iridium, technetium, osmium, ruthenium, rhenium, vanadium, and indium.

47. (Previously presented) The solution of metal-polymer chelates of Claim 42, wherein the carboxyl group bearing molecules are selected from a group consisting of monocarboxylic acid, dicarboxylic acid, tricarboxylic acid, acetic acid, L-ascorbate, 2-hydroxybenzoic acid, methanoic acid, propionic acid, propanedioic acid, 2-hydroxypropanoic acid, hydroxybutanedioic

acid, butanedioic acid, hexanedioic acid, cis-butendioic acid, trans-butendioic acid, ethanedioic acid, dodecanoic acid, 2,3-dihydrobutanedioic acid, humic acid, nitrified humic acid, fatty acid, opines in a plant, carboxyl acid fiber, and carboxyl resin.

48. (Previously presented) The solution of metal-polymer chelates of Claim 42, wherein the hydroxyl group bearing compounds are selected from a group consisting of sucrose, maltose, lactose, trehalose, disaccharide molecules, monosaccharide molecules, chitosan, degraded oils, seaweed cell wall (without adding a metal salt), unhusked rice (without adding a metal salt), cytokinin-O-glucosides, amino group containing polyvinyl alcohol, polyvinyl alcohol, humic acid, nitrified humic acid, peat,hydroxypropylmethyl cellulose, and a mixture of oil and sugar.

49. (Previously presented) The solution of metal-polymer chelates of Claim 42, the metal-polymer chelates being selected from a group consisting of polymer bridging agent, inorganic polymer carrier, inorganic and organic bridge polymer, nano inorganic polymer, plant fiber, carboxyl acid fiber, modification having carboxyl acid fiber, carboxyl resin, amino resin, inorganic matter, polylysine, and aminosilane.

50. (Previously presented) The solution of metal-polymer chelates of Claim 42, wherein the solution of metal-polymer chelates further comprises a moisture absorbent combined with the metal-polymer chelates.

51. (Previously presented) The solution of metal-polymer chelates of Claim 49, wherein the polymer bridging agent being a monosaccharide having linear polymers or polyvinylpyrrolidone.

52. (Previously presented) The solution of metal-polymer chelates of Claim 42, wherein the biological proteins are selected from a group consisting of a protein enzyme, a bacterium, and a cell.

53. (Previously presented) The solution of metal-polymer chelates of Claim 42, further comprising a silicic acid bearing molecule.

54. (Previously presented) The solution of metal-polymer chelates of Claim 42, further comprising:

a clay.

55. (Previously presented) The solution of metal-polymer chelates of Claim 42, further comprising a plastic polymer.

56. (Previously presented) The solution of metal-polymer chelates of Claim 42, in which the solution is used in an oxidation process so as to produce oxygen anions.

57. (Previously presented) The solution of metal-polymer chelates of Claim 42, in which the solution is used for a condensation having at least one oxidizing condensation.

58. (Previously presented) The solution of metal-polymer chelates of Claim 42, in which the solution is used in one of a hydroxypropylmethyl cellulose mimic of chitosan and a monosaccharide mimic of glucosamine.

59. (Previously presented) The solution of metal-polymer chelates of Claim 42, in which the solution is used in the cultivation and purification of the biological protein bearing biological molecules and their metabolites.

60. (Previously presented) The solution of metal-polymer chelates of Claim 42, in which the solution is used in a metal enzyme biocatalyst.

61. (Previously presented) The solution of metal-polymer chelates of Claim 42, in which the solution is used in a disinfectant.

62. (Previously presented) The solution of metal-polymer chelates of Claim 42, in which the solution is used in a biological protein bearing biological molecules culture medium preservation system.

63. (Previously presented) The solution of metal-polymer chelates of Claim 42, in which the solution is used for dietary treatments and for health care applications.

64. (Previously presented) The solution of metal-polymer chelates of Claim 42, in which the solution is used for the production of chemical components of a plant.

65. (Previously presented) The solution of metal-polymer chelates of Claim 42, in which the solution is used for duplication of genes and carriers.

66. (Previously presented) The solution of metal-polymer chelates of Claim 42, in which the solution is used in a nano filtration system.

67. (Previously presented) The solution of metal-polymer chelates of Claim 42, in which the solution is used for the production of a nano material.

68. (Previously presented) The solution of metal-polymer chelates of Claim 42, in which the solution is used for one of the nano inorganic matter and nano ceramic and nano plastic and nano textile industries.

69. (Previously presented) The solution of metal-polymer chelates of Claim 42, in which the solution is used in one of the manufacture of biological liquid crystals and biological semiconductors and biochips.

70. (Previously presented) The solution of metal-polymer chelates of Claim 42, in which the solution is used for biological batteries.

71. (Previously presented) The solution of metal-polymer chelates of Claim 42, in which the solution is used for processing an oil product having at least one solvent liquid.

72. (Previously presented) The solution of metal-polymer chelates of Claim 49, wherein the metal-polymer chelates produce at least one substance, the substance being selected from the group consisting of amino metal compound, an amino metal polymer, an amino nano metal polymer, an amino nano metal compound, a nano metal polymer, a nano metal compound, an amino biological protein bearing biological molecules,and a pure biological protein bearing biological molecules.